FACTSHEET

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RODENT CONTROL IN HORSE STABLES

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WHY CONTROL RODENTS IN STABLES?

Mice and rats consume and contaminate food destined for livestock and other animals as well as humans. A mature rat can eat up to 30 g (1 oz) of feed (almost 10% of its body weight) in a day. A colony of 100 rats can consume over a ton of feed in 1 year. This exceeds the amount of grain required to feed a 454-kg (1,000-lb) horse for a year. This amount does not include feed that has been spoiled by rodent urine, droppings and hair, which can be as much as 10 times the amount consumed if they have free access to the feed storage area. In the U.S., the United States Department of Agriculture (USDA) estimates that the equivalent of more than $2 billion in feed is destroyed by rodents each year. [1]

Rodents can cause damage to building structures and may cause irreparable losses due to fires that result from the animals gnawing through wire insulation and exposing the live wires. Rodents are also responsible for aiding in the transmission of diseases such as salmonellosis, leptospirosis, trichinosis and rabies. They can harbour and spread mites, ticks, lice, fleas and internal parasites. Mice and rats can carry disease-causing organisms on their fur and their feet, contributing to the spread of disease and thwarting even the best-planned biosecurity measures.

Rodent control is essential particularly due to the short pregnancy cycle of a rodent, which is a mere 19–21 days. One female mouse can produce five to 10 litters per year, each litter yielding five to six young that will be sexually mature in 6–10 weeks. In 1 year, a female rat is capable of producing 22 female offspring that may begin reproducing as soon as 3 months after birth.

DOES YOUR FARM HAVE A PROBLEM?

Rodents always leave behind their "calling cards" in the form of droppings, freshly gnawed wires or wood, or shredded material such as fibreglass insulation, expensive winter horse blankets or saddle pads. They are generally more active at night and can often be heard scurrying overhead in the ceilings and walls. It is a generally accepted rule of thumb that there are approximately 25 mice or rats for every one that you see.

The adaptability and agility of these animals make getting rid of them particularly difficult. Mice are capable of running up a vertical surface, negotiating a wire like the finest circus performer and can easily jump to a height of 30 cm (12 in.) from a flat surface. Holes in walls as small as 0.6 cm (¼ in.) in diameter can allow a mouse entry. A rat only needs a hole 1 cm (½ in.) in diameter to gain entry. Their keen sense of smell, hearing, taste and touch help them in their constant struggle for survival. [2]

WHAT DO MICE AND RATS LIKE TO EAT?

Given a choice, most mice and rats would choose to feed on cereal grains. However, rodents can be considered to be omnivores, as rats will eat meat when it is available. When food supplies are scarce, they will eat almost anything, including plaster and even soap or animal carcasses. Mice have been known to nest over winter inside the carcass of a deer stricken with rabies, consume the meat and become infected. They then become vectors of this disease.

RODENT CONTROL

Basically, there are two important steps that must be taken to ensure that any rodent-eradication program will be effective.

Sanitation: Remove their food source. Store all grain and livestock feedstuffs in metal bins (with securely fitting lids) in a closed room. Sweep up any spilled feed and dispose of it in a similar container (a metal garbage can with a lid). A limited food supply will create an environment that is less hospitable. Store hay and straw away from the horse barn when possible. Straw often contains some grain and provides an ideal home for mice.

"Rodent-proof" the buildings: Eliminate any shelter for rodents and discourage them from living under your roof. They will not survive in large numbers if they do not have a suitable place to hide, rest, build nests and

have litters. The term "build them out" refers to constructing buildings that eliminate any openings greater than 0.6 cm (¼ in.). Caulk or seal cracks in foundations, gaps around water pipes or conduits through walls with concrete or metal. Steel wool makes a good temporary plug. Windows and doors should fit snugly and have metal frames, to discourage gnawing. Many horse-stable doors are left open for most of the day, inviting rodent entry. It would be better to have Dutch doors with the top door left open.

Once steps have been taken to stop rodents from entering the barns, steps can be taken to deal with those living in stables.

Predators, including the numerous cats and Jack Russell terriers that inhabit stables in the countryside, probably make up the most popular method of rodent control used. While many may think this is an effective method of controlling rodents, the reality is that mice or rats may be on the premises because they were attracted by the food and water set out for a dog or cat. The presence of predators may teach the rodents to be more skilled in hiding, leading us to believe their numbers are fewer. The cat may catch a few mice, but it won't catch them as quickly as they can multiply.

Trapping is probably the most commonly practised method of effective eradication. It is preferred because it does not involve the use of poisons that can be fatal to pets or children. Progress can be monitored with the removal of every rodent caught and disposed of in a sanitary manner, unlike with poisoning. Uncollected poisoned carcasses may pose a health threat to pets and other non-target animals.

There is a variety of trap designs available, starting with the simple, wooden-base "snap trap." A new type is the multiple-capture live trap, which uses the already-trapped mice to attract other mice. Set an adequate number of traps approximately 3 m (10 ft) apart along the baseboards of the walls in active rodent territory.

Poisons (Rodenticides): Many types of rodent poisons are available over the counter at farm supply and hardware stores. Their use must be closely supervised and monitored to prevent accidental contact or ingestion by children or pets.

In physiological terms, "multiple-dose" toxic baits, such as warfarin, generally act as an anticoagulant. These are usually less potent than single-dose preparations and rely on an accumulation in the body, as a result of several feedings, to ultimately kill the animal. Single-dose preparations, including bromadiolone, are incorporated into wax blocks or sticks. Unfortunately, these rodenticides are attractive to the family pet as well as to rodents.

Dogs find baits appetizing

The single-dose baits incorporated into wax blocks are appetizing to dogs. A dog, given the opportunity, will readily swallow them. If this occurs, contact your veterinarian immediately. Take a sample of the bait and the package insert to the veterinarian. Induction of vomiting to eliminate the wax block is often required. These blocks cannot be removed by use of a stomach tube. If induction of vomiting is unsuccessful, surgical removal may be required. Vitamin K treatment may be necessary for up to a month after ingesting a single dose of these rodent baits.

"Pre-baiting" is a method of laying out bait traps that do not contain poison for 2 or 3 days to enhance bait acceptance. The addition of the poison at this point has proven to be successful. Remember to remove all baits when the signs of rodent presence disappear. Remove single-dose baits after 3 or 4 days.

If bait boxes or stations are used, clearly label them "CAUTION — MOUSE BAIT" as a safety precaution. Use tongs or rubber gloves to pick up and remove dead rodents. These carcasses can either be incinerated or buried under a minimum of 30 cm (12 in.) of earth.

Tips for controlling and preventing rodent damage on the farm

- Remove the food source.
- Rodent-proof the buildings.
- Eliminate nest sites.
- Keep areas close to buildings trimmed and free of weeds and long grass.
- Avoid feed spillage.
- Keep feed and waste in metal containers with tight-fitting lids.
- Practice good sanitation. [3]

Enclosed areas can be fumigated. Have this done by pest control professionals, as these chemicals are highly toxic to humans. [4]

Preventing these creatures from coming into stables and homes is much easier than eradicating them once they have become established. If an infestation is suspected, contact a professional pest control company.

A sound prevention plan, complemented with the measures mentioned above, should eliminate unwelcome stable guests.

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